Owner's Manual

CRAFTSMAN®

Non-Contact InfraRed (IR) Thermometer

MODEL 50455

CAUTION: Read, understand and follow Safety Rules and Operating Instructions in this manual before using this product.

- Safety
- Operation
- Maintenance
- Español

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FULL ONE YEAR WARRANTY

FULL ONE YEAR WARRANTY ON CRAFTSMAN InfraRed Thermometer

If this CRAFTSMAN InfraRed Thermometer fails to give complete satisfaction within one year from the date of purchase, RETURN IT TO THE NEAREST SEARS STORE OR OTHER CRAFTSMAN OUTLET IN THE UNITED STATES, and Sears will replace it, free of charge.

If this CRAFTSMAN InfraRed Thermometer is used for commercial or rental purposes, this warranty applies for 90 days from the date of purchase.
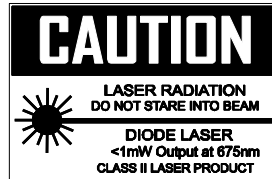
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

For Customer Assistance Call 9am-5 PM (EST)
Monday through Friday 1-888-326-1006

SAFETY INSTRUCTIONS

- **USE EXTREME CAUTION** when the laser pointer beam is on

- **DO NOT** point the beam toward anyone's eye or allow the beam to strike the eye from a reflective surface

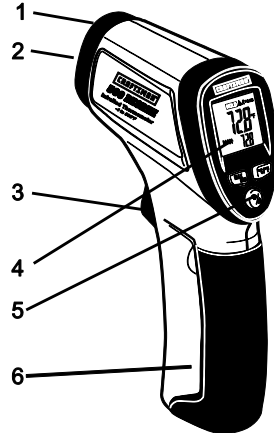- **DO NOT** use the laser near explosive gases or in other potentially explosive areas

CAUTION

LASER RADIATION
DO NOT STARE INTO BEAM

DIODE LASER
<1mW Output at 675nm
CLASS II LASER PRODUCT

SPECIFICATIONS

Range	-4 to 500°F (-20 to 260°C)
Resolution	0.1°
Accuracy	-4 to 20°F (-20°C to -7°C): ±7.5°F (4°C)
	20 to 500°F (-7°C to 260°C): ±3% of reading or ±5°F/2.5°C (whichever is greater)
	Note: Accuracy is specified for an ambient temperature range of 64 to 82°F (18 to 28°C)
Emissivity	Fixed 0.95
Field of View	D/S = Approx. 6:1 ratio (D = distance; S = spot *or target*)
Laser pointer	Class 2(II) laser < 1mW power; Wavelength is 630 to 670nm
IR Spectral response	8 to 14 μm
Display	Backlit LCD display with function indicators
Display update rate	Less than 1 second
Operating Temperature	32°F to 122°F (0°C to 50°C)
Operating Humidity	80% Relative Humidity max.
Power Supply	9V battery
Automatic Power Off	Meter shuts off automatically after 8 seconds
Weight	4.4 oz (125g)
Dimensions	3.15 x 1.25 x 5.4" (80x31.7x137mm)

CONTROLS

Meter Description

1. Laser pointer
2. IR sensor
3. Measurement trigger
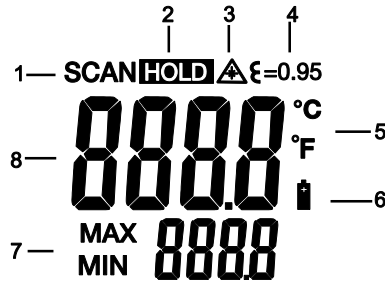4. LCD display
5. Function buttons*
6. Battery compartment

Function Buttons

- **Max/Min**: Select Max or Minimum display.
- **°C/°F**: Select temperature units
- 🔦⚠ **Backlight / Laser Pointer**: For turning the LCD backlight or the Laser pointer ON/OFF
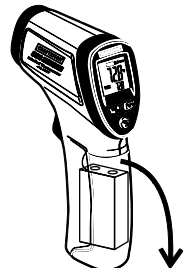
DISPLAY DESCRIPTION

1. Displays SCAN when trigger is depressed;
2. Displays HOLD when trigger is released
3. Laser pointer ON
4. Emmisivity setting (0.95)
5. Temperature units
6. Low battery
7. Max/Min display
8. Temperature display

BATTERY INSTALLATION

When the low battery symbol 🔋 appears on the LCD, replace the meter's battery (9V). The battery compartment is located in the rear of the handle.

Open the compartment by carefully pulling the panel down. The panel is hinged at the bottom and does not completely disconnect from the meter. Replace the 9V battery and close the battery compartment cover.

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OPERATING INSTRUCTIONS

Power

1. The meter is powered by one (1) 9V battery.

IR Measurements

1. Hold the meter by its handle and point it toward the surface to be measured.

2. Pull and hold the trigger to turn the meter on and begin testing. The temperature reading, the flashing 'SCAN' icon, the emissivity, the unit of measure and other icons as shown in the Display Description will appear. Note: Replace the meter's 9V battery if the display does not switch on.

3. Release the Trigger and the reading will hold for approximately 8 seconds (HOLD will appear on the LCD) after which the meter will automatically shut off.

Temperature units

With the trigger pressed, press the ºF/ºC button to select the temperature units.

Backlight/Laser Pointer
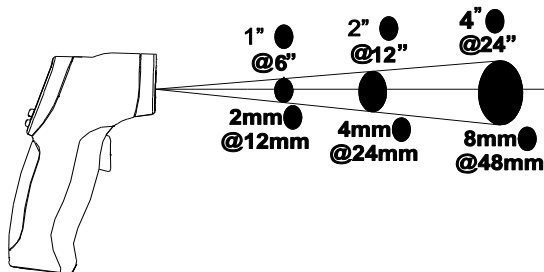
With the trigger pressed:

1. Press the ☼⚠ button once to change the state of the backlight (On or Off). When the laser is on the laser icon will appear in the display.

2. Press the ☼⚠ button again to change the state of the backlight (On or Off).

IR Measurement Notes

1. The object under test should be larger than the spot (target) size calculated by the field of view diagram (printed on the side of the meter and in this guide).

2. Before measuring, be sure to clean surfaces that are covered with frost, oil, grime, etc.

3. If an object's surface is highly reflective, apply masking tape or flat black paint to the surface before measuring. Allow time for the paint or tape to adjust to the temperature of the surface it is covering.

4. Measurements through transparent surfaces such as glass may not be accurate.

5. Steam, dust, smoke, etc. can obscure measurements.

6. The meter automatically compensates for deviations in ambient temperature. However, it can take up to 30 minutes for the meter to adjust to extremely wide changes.

7. To find a hot spot, aim the meter outside the area of interest then scan across (in an up and down motion) until the hot spot is located.

Field of View

As the distance from the object increases, the spot size of the area measured becomes larger. The meter's field of view is 6:1; in other words if the meter is 6 inches from the target (spot), the diameter of the target must be at least 1 inch. Note that measurements should normally be made as close as possible to the device under test. The meter can measure from moderate distances but the measurement may be affected by external sources of light. In addition, the spot size may be so large that it encompasses surface areas not intended to be measured.

TROUBLESHOOTING

There may be times when your meter does not operate properly. Here are some common problems that you may have and some easy solutions to them.

Meter Does Not Operate:
1. Always read all the instructions in this manual before use.
2. Check to be sure the battery is properly installed.
3. Check to be sure the battery is good.

If You Do Not Understand How the Meter Works:
 Call our Customer Service Line **1-888-326-1006**.

SERVICE AND PARTS

For replacement parts shipped directly to your home
Call 9 am – 5 pm Eastern Time, M - F
1-888-326-1006